

REMARKS

Claims 2-4 and 6-8 are now pending in the application. Claim 2 has been amended into independent form and is intended to be of equivalent scope as originally filed. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

DRAWINGS

The examiner has objected to Figures 1 and 2 for being "unclear". Since the examiner has issued a first office action on the merits, the applicant has presumed then that the objection lies with line quality and clarity. Applicant has therefore included formal replacement drawings with this response.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ott et al. (U.S. Pat. No. 5,447,143). Applicant has cancelled claim 1, thereby rendering its rejection moot. With respect to claim 2, the rejection is respectfully traversed.

Ott discloses, in pertinent part, a crankshaft target wheel for use in a method of crank and cam synchronization. The method of Ott requires that the camshaft rotate until a reference mark is identified. Once the reference mark is identified, the crankshaft and camshaft may be synchronized (*col. 3, lines 22-23*). Since it may require up to 720 crankshaft degrees for Ott's method to synchronize, it is of the type the applicant has described as prior art.

By way of contradistinction, the method of applicant's claim 2 operates with a camshaft having a plurality of position indicating teeth. A predetermined amount of the plurality of camshaft teeth is then assigned to be marked teeth. The counted number of marked teeth found in a pair of sample sizes is then used to determine a crankshaft phase position. Applicant avers that Ott at least does not disclose the claimed step of . . . assigning a predetermined amount of said plurality of teeth of said camshaft as marked teeth . . . and must therefore fail as an anticipatory reference.

REJECTION UNDER 35 U.S.C. § 103

Claims 3-8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ott et al. (U.S. Pat. No. 5,447,143). This rejection is respectfully traversed. Applicant has cancelled claim 5, thereby rendering its rejection moot. With respect to claim 6, the rejection is respectfully traversed.

Firstly, the applicant avers that Ott fails to teach or suggest all of the elements of the applicant's invention and must therefore fail as a sole reference in establishing a *prima facie* case of obviousness. The method of applicant's claim 6 operates at least in part by assigning a predetermined amount of a plurality of teeth as marked teeth; identifying an amount of said plurality of marked teeth of a rotating camshaft within first and second reference windows; and determining the position of a rotating crankshaft based on the amount of marked teeth identified within said first and second reference windows. Applicant avers that Ott at least does not teach or suggest the claimed step of . . . assigning a predetermined amount of said plurality of teeth as marked teeth . . . , and that the examiner's suggestion otherwise is based solely on the applicant's own disclosure.

Furthermore, the examiner has cited Ott's disclosure of detecting the shaft is at a standstill as motivation for the applicant's first and second windows. While the applicant disagrees with the examiner's logic, applicant has nonetheless amended claim 6 to clarify that the steps of assigning a predetermined amount of said plurality of teeth as marked teeth and of identifying an amount of said plurality of marked teeth of said rotating camshaft within said first and second reference window, apply to a rotating camshaft.


Applicant believes that claim 6 is now in a condition for allowance since Ott fails to teach or suggest identifying marked teeth of a rotating camshaft within first and second reference windows.

CONCLUSION

The remaining claims depend either directly or indirectly from claims 2 and 6, which the applicant believes are now in a condition for allowance. It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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